

Name: _____

Date: _____ Bell: _____

Algebra Property Matching

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| 1. Associative Property of Addition | A. $-4(x + 7) = -4x - 28$ |
| 2. Associative Property of Multiplication | B. $x \left(\frac{1}{x} \right) = 1$ |
| 3. Commutative Property of Addition | C. $-5 + 5 = 0$ |
| 4. Commutative Property of Multiplication | D. $x + (y + z) = x + (z + y)$ |
| 5. Distributive Property over Addition | E. $-2 = -2$ |
| 6. Identity Property of Addition | F. $x + (y + z) = (x + y) + z$ |
| 7. Identity Property of Multiplication | G. If $a = b$, then $b = a$. |
| 8. Inverse Property of Addition | H. $-4(mp) = (-4m)p$ |
| 9. Inverse Property of Multiplication | I. If $x = y$ and $y = z$, then $x = z$. |
| 10. Zero Product Property | J. $g(1) = g$ |
| 11. Reflexive Property of Equality | K. $a + 0 = a$ |
| 12. Symmetric Property of Equality | L. $-4(mp) = -4(pm)$ |
| 13. Transitive Property of Equality | M. $ab(0) = 0$ |

1. What is the value of $\frac{a+b}{2b}$ if $a = 10$ and $b = 15$?

A. $\frac{5}{6}$

B. $\frac{5}{4}$

C. 5

D. 25

2. Which is an example of the commutative property of addition?

A. $3 + 5m = 3 + (1 + 4)m$

B. $3 + 5m = 5m + 3$

C. $3 + 5m = (3 + 5)m$

D. $3 + 5m = 3m + 5$

3. What property of real numbers justifies the following statements?

$$4x(y + 2) - 3y \text{ is equivalent to } 4x(y) + 4x(2) - 3y$$

A. The associative property of multiplication

B. The commutative property of multiplication

C. The distributive property of multiplication over addition

D. The closure property of multiplication

4. The statement “If $2(3a - 4) = 12$, then $6a - 8 = 12$ ” is justified by the

A. Associative property of multiplication

B. Multiplication property of equality

C. Addition property of equality

D. Distributive property

5. Using the distance formula, $d = rt$, what is the value of t when $d = 3,520$ and $r = 550$?

A. 6.4

B. 2,970

C. 4,070

D. 1,936,000